

```

1 // process_text_stream.cpp
2 //
3 #ifdef _WIN32
4     #pragma warning(disable:4996)
5     #include <tchar.h>
6     #include <windows.h>
7     #include <conio.h>
8     #include <direct.h>
9 #elif (defined __linux__) || (defined _AIX) || (defined __APPLE__)
10    #include <stdlib.h>
11    #include <sys/types.h>
12    #include <sys/stat.h>
13    #include <unistd.h>
14    typedef char _TCHAR;
15    #define _tmain main
16 #endif
17
18 #include <stdio.h>
19 #include <string.h>
20 #include <fstream>
21 #include <iostream>
22 #include <iomanip>
23 using namespace std;
24
25 #include "Veta.h"
26
27 #define MAXLINE 255
28
29 void my_getch();
30 void GetNamesOfIOFiles(const char[], char[]);
31 //-----
32 int _tmain(int argc, _TCHAR* argv[])
33 {
34     ifstream in;
35     VetaClass** veta;
36     unsigned i, j, k, n, PocetViet;
37     char c, * str, nameoffile[MAXLINE];
38
39     cout << "\n Tento program nacita vetu z textoveho suboru, vyhodi z nej "
40          << "prebytocne\nmedzery a na obrazovku vypise upravenu vetu a potom"
41          << " pod seba jednotlivé slova\nspolu s ich dlzkami.\n\n";
42
43     GetNamesOfIOFiles("VETY.TXT", nameoffile);
44     in.open(nameoffile, ios::in);
45     if (!in) {
46         cout << " Subor VETY.TXT sa nepodarilo otvorit.\n";
47         my_getch();
48         exit(1);
49     }
50
51     i = 0;
52     veta = new VetaClass * [50];
53     do {
54         do {
55             in.get(c);
56         } while ((!isalnum(c)) && (!ispunct(c)) && (!in.eof()));
57
58         if ((isalnum(c)) || (ispunct(c))) {
59             veta[i] = new VetaClass;
60             in.putback(c);
61             in >> veta[i];
62             i++;
63         }
64     } while (!in.eof());
65     PocetViet = i;
66     in.close();
67
68     cout << " Zadana veta:\n\n";
69     cout << " ";
70     for (i = 0; i < PocetViet; i++)
71         cout << veta[i];
72     cout << "\n\n Press any key!";
73     my_getch();

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74
75     n = 0;
76     cout << "\n\n Slova vety          Dlzka slov\n";
77     for (i = 0; i < PocetViet; i++) {
78         for (j = 0; j < veta[i]->PocetSlov; j++) {
79             str = veta[i]->DajSlovo(j);
80             k = (unsigned)strlen(str);
81             cout << "\n " << str;
82             cout.setf(ios::right);
83             cout << setw(27 - k) << k;
84             n++;
85             if (n % 40 == 0) {
86                 n = 0;
87                 cout << "\n\n Press any key!\n";
88                 my_getch();
89             }
90         }
91     }
92     cout << endl;
93
94     for (i = 0; i < PocetViet; i++)
95         delete veta[i];
96     delete[] veta;
97
98     my_getch();
99     return 0;
100 }
101 //-----
102 void my_getch()
103 {
104     #ifdef _WIN32
105         _getch();
106     #else
107         cout << endl;
108     #endif
109 }
110 //-----
111 void GetNamesOfIOFiles(const char name_of_input_file[], char path_to_input_file[])
112 {
113     char current_path[MAXLINE];
114     current_path[0] = '\0';
115
116     #ifdef _WIN32
117         TCHAR exePath[MAXLINE];
118
119         HMODULE hModule = GetModuleHandle(NULL);
120         if (hModule != NULL) {
121             if (!GetModuleFileName(hModule, exePath, MAXLINE)) {
122                 cout << "Nepodarila sa zistit cesta k exe-suboru.\n";
123                 my_getch();
124                 exit(1);
125             }
126         }
127         else {
128             cout << "Module handle is NULL.\n" << endl;
129             my_getch();
130             exit(1);
131         }
132     #ifdef __BORLANDC__
133         int iii;
134         bool flag = false;
135         for (iii = strlen(exePath); iii >= 0; iii--) {
136             if (!flag && exePath[iii] == '\\') {
137                 current_path[iii + 1] = '\0';
138                 flag = true;
139             }
140             if (flag)
141                 current_path[iii] = (char)exePath[iii];
142         }
143     #else
144         int iii;
145         bool flag = false;
146         for (iii = (int)wcslen(exePath); iii >= 0; iii--) {

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147         if (!flag && exePath[iii] == '\\') {
148             current_path[iii + 1] = '\0';
149             flag = true;
150         }
151         if (flag)
152             current_path[iii] = (char)exePath[iii];
153     }
154 #endif
155 #elif (defined __linux__) || (defined __APPLE__)
156     unsigned iii;
157     char line[MAXLINE];
158     FILE* fp;
159     if ((fp = popen("/bin/pwd", "r")) == NULL) {
160         perror("popen error");
161         exit(1);
162     }
163     if (fgets(line, MAXLINE, fp) == NULL) {
164         perror("fgets error");
165         exit(1);
166     }
167     pclose(fp);
168
169     iii = 0;
170     while (line[iii] != '\r' && line[iii] != '\n') {
171         current_path[iii] = line[iii];
172         iii++;
173     }
174     current_path[iii] = '\0';
175 #elif (defined _AIX)
176     unsigned iii;
177     char line[MAXLINE];
178     FILE* fp;
179     if ((fp = popen("user/bin/pwd", "r")) == NULL) {
180         perror("popen error");
181         exit(1);
182     }
183     if (fgets(line, MAXLINE, fp) == NULL) {
184         perror("fgets error");
185         exit(1);
186     }
187     pclose(fp);
188
189     iii = 0;
190     while (line[iii] != '\r' && line[iii] != '\n') {
191         current_path[iii] = line[iii];
192         iii++;
193     }
194     current_path[iii] = '\0';
195 #endif
196
197     path_to_input_file[0] = '\0';
198     strcat(path_to_input_file, current_path);
199 #if (defined __linux__) || (defined _AIX) || (defined __APPLE__)
200     strcat(path_to_input_file, "/inputs/");
201 #elif (defined _WIN32)
202     strcat(path_to_input_file, "inputs\\");
203 #endif
204     strcat(path_to_input_file, name_of_input_file);
205 }
206 //-----
207

```